Docket No.: PU020290
Customer No. 24498

Application No.: 10/518,278.
Art Unit: 2619

Remarks/Arguments

Introduction

The Office Action mailed on November 21, 2007 has been reviewed and carefully considered.

Claims 1, 7 and 9 have been amended. Claims 11-16 have been added. Support for the new claims may be found, e.g., at page 11, lines 3-13; page 8, lines 4-14; and page 2, lines 5-13 of the Specification. Claims 1-16 are now pending in this application.

Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested. It should be noted that the Applicant is not conceding in this application that the amended claims in their prior form are not patentable over the art cited by the Examiner, as the present claim amendments have been made to facilitate expeditious prosecution of the application. The Applicant respectfully reserves the right to pursue these and other claims in one or more continuation and/or divisional patent applications.

Further, it should also be noted that the phrase "in response to" in the amended claims should in no way be construed as restricting the selection of signals to be based only on a determination of whether one or more reference signals are error-free, as the selection of signals may also be based on additional factors. Moreover, the phrase "in response to" was included in the amended claims for clarification purposes and is not intended to change the meaning of the claims.

Prior to addressing the outstanding rejections, the Applicant will briefly summarize aspects of one or more described implementations to better assist the Examiner in appreciating the differences between the claimed invention and the prior art references. Various implementations include apparatuses and methods for employing reference signals in a broadcast router. Reference signals are well known in the art and oftentimes are utilized for timing purposes, such as signal synchronization and timing switches within a broadcast router (see, e.g., Specification, p. 1, lines 26-28). Examples of reference signals include a video black reference signal, a tri-level synchronization signal and a digital audio reference signal ('DARS') (see, e.g., Specification, p. 1, lines 24-25).

-7-

Docket No.: PU020290
Customer No. 24498

Application No.: 10/518,278
Art Unit: 2619

In one implementation, reference signal inputs of a broadcast router may be configured for selective application of either a redundant reference signal or multiple, independent reference signals. For example, in a broadcast router having two reference signal inputs, the reference signal inputs may receive and process either the same reference signal or different reference signals (see, e.g., Specification, p. 11, lines 4-13). That is, reference signal inputs of a broadcast router may readily receive and process either the same reference signal or different reference signals (see, e.g., Specification, p. 11, lines 4-13). This aspect is advantageous over prior reference signal inputs that have been predefined as either redundant or independent, requiring modification of the reference signal input to switch between a redundant or an independent state (see, e.g., Specification, p. 2, lines 5-12). Examples of such modifications include actuating a physical switch or selecting a setting through a graphical user interface (see, e.g., Specification, p. 2, lines 9-12).

As discussed herein below, the Applicant respectfully submits that the prior art references cited by the Examiner fail to disclose at least some features of the present claims.

Claim Rejections

Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shulom (U.S. Patent No. 6,104,997) (hereinafter 'Shulom') in view of Tanizawa et al. (U.S. Publication No. 2002/0031334) (hereinafter 'Tanizawa').

Shulom and Tanizawa fail to disclose or suggest, at least, the three-function recitation of claim 1 reproduced below:

> wherein said reference select circuit: (1) passes a first signal applied to said first reference input to said at least one router component as a first reference signal and a second signal applied to said second reference input to said at least one router component as a second reference signal in response to determining that said first and second signals are error-free; (2) passes said first signal to said at least one router component as said first reference signal and as said second reference signal in response to determining that said first signal is error-free and said second signal is not error-free; and (3) passes said second signal to said at least one router component as said first reference signal and as said second reference signal in response to determining that said first signal is not error-free and said second signal is error-free.

-8-

Docket No.: PU020290
Customer No. 24498

Application No.: 10/518,278
Art Unit: 2619

Rather, Shulom discloses a digital audio receiver that is adapted to receive two digital audio streams at two decoder inputs (see, e.g., Shulom, elements 12 and 13, Fig. 4; column 2, lines 30-34). Each stream includes multiple channels carrying digital audio and clock information, which are extracted from the streams by the decoders (see, e.g., Shulom, column 2, lines 31-32). The clock data is used to write audio information from each channel to first-in first-out (FIFO) modules (see, e.g., Shulom, column 2, lines 34-38). Under the control of system clocks, the audio data from each channel is transmitted to selectors, which are configured to output two digital audio streams that may include different combinations of audio channels originally received at the decoders (see, e.g., Shulom, column 2, lines 39-48).

Although Shulom discloses manipulation and switching of audio channels, Shulom fails to disclose or render obvious passing one <u>reference</u> signal in lieu of another <u>reference</u> signal in the manner recited in claim 1. As described above, a reference signal is well-known in the art and oftentimes is utilized for timing purposes, including signal synchronization and timing switches within a broadcast router. Shulom does not disclose selective passing of any reference signals. As stated above, the selector of Shulom merely switches channels carrying audio data. While Shulom employs clock data to write and output audio streams from the FIFO modules, nowhere does Shulom disclose or suggest, for example, switching clock data extracted from the digital audio streams received at the decoders.

Furthermore, Tanizawa also fails to disclose or suggest the three function recitation of claim 1 reproduced above. Rather, Tanizawa is directed to an audio/video editing and distribution system configured to permit editing of a digital audio/video stream while simultaneously playing the audio/video stream. Specifically, Tanizawa discloses a method for determining the precise storage location of a section of an audio/video stream that is edited in real time during playback of the stream (see, e.g., Tanizawa, paragraphs 15-16, 19). Upon determining the precise storage location, the edited portion of the stream may be accurately stored and overlaid on the corresponding section of the original stream (see, e.g., Tanizawa, paragraph 23).

-9-

Docket No.: PU020290
Customer No. 24498

Application No.: 10/518,278
Art Unit: 2619

To determine the precise storage location of a section of an audio/video stream corresponding to real-time edits, Tanizawa describes utilizing a signal to time and match a storage location of an edited buffer stream with a buffer storage location of the original stream (see, generally, e.g., Tanizawa, paragraphs 376-393; FIGS. 66-70). However, Tanizawa simply discloses using a single signal to determine the locations of corresponding sections of audio/video streams on different storage mediums. Tanizawa does not disclose or remotely suggest selective passing of one signal (reference or otherwise) in lieu of another signal.

Moreover, passing of one reference signal in lieu of another reference signal (in the manner recited in claim 1) is not obvious in view of Shulom and Tanizawa, taken singly or in combination. Manipulation of signal streams within either reference concerns routing of data. Shulom in particular is directed to routing data streams to different destinations (see, e.g., Shulom, column 1, lines 26-35). In contrast, aspects of one or more implementations of our specification include employing a reference signal in lieu of another reference signal to facilitate and maintain internal processing operations. Based on the cited references, one of ordinary skill in the art would not conceive of employing a reference signal in lieu of another reference signal in the manner recited in claim 1.

Claim 1 is believed to be patentable over Shulom and Tanizawa, taken singly or in combination, for at least the reasons discussed above. Furthermore, claim 2 is patentable over Shulom and Tanizawa due at least to its dependency on claim 1.

Claims 3 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shulom in view of Tanizawa in further view of Lydon et al. (U.S. Patent No. 6,680,939) (hereinafter 'Lydon'). Applicants disagree.

Claims 3 and 4 depend on claim 1. As described above neither Shulom nor Tanizawa disclose or render obvious claim 1. Additionally, Lydon fails to cure these deficiencies. Rather, Lydon is directed to an expandable router that is adapted to route several different data streams from its input terminals to its output terminals (see Lydon, Abstract). Nowhere does Lydon disclose manipulating reference signals in any way.

-10-

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lydon in view of Shulom. Applicants disagree. Lydon and Shulom fail to disclose or suggest, at least, the following recitation from claim 5:

> a second reference input ... configured for selective application of either a second reference signal or a redundancy of said first reference signal thereto.

Rather, as discussed above, Lydon does not disclose utilization of <u>reference</u> signals in any way. Furthermore, Shulom does not state whether signals including clock data are redundant or independent. Moreover, Shulom certainly does not disclose that any inputs of any of its system components are configured for <u>selective application</u> of either <u>independent or redundant</u> signals at the inputs. Accordingly, claim 5 is believed to be patentable over Lydon and Shulom, taken singly or in combination.

Claims 6 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lydon in view of Shulom in further view of Donak et al. (U.S. Patent No. 6,330,316) (hereinafter 'Donak'). Applicants disagree.

Claims 6 and 7 depend on claim 5. As discussed above, Lydon and Shulom fail to disclose or render obvious claim 5. In addition, Donak fails to cure the deficiencies of Lydon and Shulom. Rather, Donak is directed to a method and system for determining whether to route a telephone call over a standard telephone network or an unreliable network, such as the internet, by measuring the quality of service levels on the unreliable network. Nowhere does Donak disclose employing reference signals. Accordingly, claims 6 and 7 are believed to be patentable over Lydon, Shulom and Donak, taken singly or in any combination for at least the reasons discussed above.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Shulom in view of Bopardikar et al. (U.S. Patent No. 6,826,778) (hereinafter 'Bopardikar'). Applicants disagree. Shulom and Bopardikar fail to disclose or suggest, at least, the following recitation from claim 8:

> if a user desires that said broadcast router operate with redundant reference signals, applying said first reference signal to said second reference input; and

-11-

Docket No.: PU020290
Customer No. 24498

Application No.: 10/518,278
Art Unit: 2619

if said user desires that said broadcast router operate with multiple reference signals, applying a second reference signal to said second reference input.

As discussed above Shulom fails to disclose or render obvious selective application of independent or redundant reference signals at reference signal inputs. In addition, Bopardikar also fails to disclose or render this feature obvious. Rather, Bopardikar describes a system for correcting and regenerating data upon a disk failure (see, e.g., Bopardikar, Abstract; column 1, line 63 to column 2, line 7). Bopardikar does not disclose that independent or redundant reference signals may selectively be applied to at least one reference signal input.

Furthermore, it should also be noted that the Examiner's assertion that Bopardikar discloses the use of redundant reference signals is unfounded. To support the assertion, the Examiner has cited a section of Bopardikar stating that two video buffers within a processing system may convey two real-time video streams to a router at the same frequency (see Office Action of November 21, 2007, p. 6, paragraph 1 ((citing Bopardikar, column 16, lines 10-16). Additionally, the Examiner has stated that the Specification suggests that video streams occupying the same frequency band are redundant reference inputs (see Office Action of November 21, 2007, p. 6, paragraph 1 (citing Specification, p. 8, lines 25-30). The cited section of the Specification states that different reference signals may, for example, have different frequencies. The cited section does not "suggest" that reference signals are redundant simply because they occupy the same frequency band. The Specification states that redundant reference signals are the same signal (see, e.g., Specification, p. 2, lines 7-8). Although redundant reference signals certainly have the same frequency, signals occupying the same frequency band are not necessarily the same signals. Thus, the cited section of Bopardikar fails to disclose or render obvious the use of redundant reference signals.

Accordingly, claim 8 is believed to be patentable over Shulom and Bopardikar, taken singly or in combination for at least the reasons discussed above. Withdrawal of the rejection is respectfully requested.

Claims 9 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shulom in view of Bopardikar in further view of Tanizawa. Applicants disagree. Claims

-12-

Docket No.: PU020290
Customer No. 24498

Application No.: 10/518,278
Art Unit: 2619

9 and 10 depend from claim 8 which is patentable over the combination of Shulom and Bopardikar, as discussed above. Tanizawa fails to cure the deficiencies of Shulom and Bopardikar. Tanizawa has been discussed above, and for at least those reasons Tanizawa does not disclose or remotely suggest the selective application of a reference signal to an input in the manner recited in claim 8.
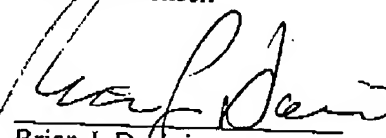
Accordingly, it is respectfully submitted that all pending claims are allowable over the cited references.

In view of the foregoing, Applicant respectfully requests that the rejections of the claims set forth in the Office Action of November 21, 2007 be withdrawn, that pending claims 1-16 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicant's representatives Deposit Account No. 07-0832.

Respectfully submitted,

Carl Christensen

Brian J. Dorini
(Reg. No. 43,594)
Attorney for Applicant(s)

Dated: FEBRUARY 14, 2008

Thomson Licensing LLC
Two Independence Way, Suite 200
Princeton, NJ 08540

-13-